

were irregular as were the three which opened the following day. On the third day there were six flowers with a ratio of 1 normal to 1.5 abnormal. The number of normal then increased over abnormal until May 11 when the ratio was 11 normal to 1 abnormal. From May 12 the number of normal flowers decreased until May 18 when the ratio was 1.3 normal to 1 abnormal. Following this period of steady and very marked decrease, there occurred a period of ten days with only slight variations between 1.3 and 1.9 normal to 1 abnormal. After May 29, the normals began a steady and rapid gain and continued up to a ratio of 13 to 1 by June 9.

The greatest number of flowers produced on any one day was 66 on May 27, with 37 normal and 29 abnormal. The petals ranged in number from 2 to 8 inclusive, the sepals from 2 to 6, and the stamens from 5 to 14. Combinations of 4 petals, 4 sepals, and 8 stamens occurred 50 times. The 4-3-8-combination occurred 28 times, and the 4-4-7 occurred 18 times. Some less frequent, but higher combinations were: 5-5-10; 6-6-12; 6-5-13; 7-5-14; 8-3-12; and 8-4-11.

From May 1 to June 9, the plant produced 965 flowers with a ratio of 2.23 normal to 1 abnormal for May; and of 10.6 to 1 for June.

The plant was not cultivated. Seedlings from the 4-4-8-combinations were established this spring, but will not flower until next spring, if then.

STEELVILLE, MISSOURI.

THE CORRECT NAME OF THE LEAFY SPURGE¹

C. V. MORTON

THE weed known as leafy spurge, of some importance in recent years, has in the United States always been known as *Euphorbia Esula* L.² However, in the 1928 Report of the Division of Botany, Department of Agriculture, Dominion of Canada, p. 15, occurs the following statement:

During 1928 the known distribution in the western provinces of a spurge, *Euphorbia virgata* (which has passed in the east as *E. Esula*), has been extended by a number of specimens received.

In October, 1931, Dr. M. O. Malte wrote to Dr. Herbert Groh as follows:

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² J. B. Norton, Ann. Rep. Mo. Bot. Gard. 11: 85. 1900. Gray's Manual, ed. 7, 549. 1908. Britt. & Brown, Ill. Flora ed. 2, 2: 473. 1913. Rydberg, Flora of the Plains, 519. 1932. Muenscher, RHODORA 32: 100. 1930, and Cornell Extension Bull. 192. 1930.

An article on *Euphorbia Esula* and its allies by the late Professor Ostenfeld, published in *Botaniska Notiser*, 1903, gives the characters of *E. Esula* and *E. virgata* as follows:

"*E. Esula*: leaves lanceolate or obovate-lanceolate, broadest above the middle or rarely of equal width throughout, rounded and generally broadened at the apex, thin and without lustre. The lateral inflorescences (those in the axils of the leaves below the main umbel) few or rarely several."

"*E. virgata*: leaves lanceolate or linear-lanceolate, broadest below the middle, acute or acutish, firm and generally somewhat lustrous. The lateral inflorescences numerous."

I may say that all our specimens are *virgata*. We should be glad to have specimens of *Esula*, should you come across it.

In 1932 my attention was directed to these facts by Prof. Herbert C. Hanson, who quoted to me the above letter, and I was able to confirm the opinion of Dr. Malte. It seems, therefore, worth while to call attention to this correction of a prevalent erroneous identification of this common weed. The characters given above by Dr. Malte do not, however, always distinguish between the two species. A more fundamental distinction is found in the lobing of the glands of the cyathium, as follows:

Horns of the glands of the cyathium shorter than the width of the gland (or sometimes nearly obsolete), not denticulate nor enlarged at the apex. Leaves broadest above the middle, narrowed at base, usually subserrulate near apex.....	E. Esula L
Horns as long as or longer than the width of the gland, enlarged at the apex, at least the larger ones denticulate on the margins. Leaves broadest below the middle, not narrowed at base, acute at apex.....	E. virgata Wald. & Kit.
Leaves broadest above the middle, narrowed at base, obtusish at apex.....	E. virgata forma esulifolia Thell.

The plants of the midwest are all true *E. virgata*, but most of those of the Atlantic seaboard are referable to forma *esulifolia*. I have seen no specimens of undoubted *E. Esula* from the United States.

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ON ECTOCARPUS GRANULOSUS.—*Ectocarpus granulatus* Ag. was first collected by Mr. Borrer. Since that time it has been found, but never in abundance, widely dispersed in the Mediterranean and from the British Isles to the Cape of Good Hope. What has been regarded as an identical species is abundant on the California coast. But in recent years, this has been separated by Setchell and Gardner as *E. granuloides*.